DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

50 CFR Part 17

Endangered and Threatened Wildlife and Plants; Determination of Iliamna corei (Peter's Mountain mallow) To Be an Endangered Species

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Final rule.

SUMMARY: The Service determines *Iliamna corei* (Peter's Mountain mallow) to be an endangered species. This plant, which occurs as a single population in western Virginia, will now be provided the protection of the Endangered Species Act of 1973, as amended. Its continued existence is threatened by the encroachment of competing vegetation, browsing by white-tailed deer, habitat degradation, and low reproductive potential. The population, which occurs on land now partially owned by The Nature Conservancy, was reduced in total area and number of plants by construction of a hiking trail in the early 1970's. Although the trail has now been abandoned, hikers occasionally follow the old path through the colony. Critical habitat is not being determined.

DATE: The effective date of this rule is June 11, 1986.

ADDRESSES: The complete file for this rule is available for inspection, by appointment, during normal business hours at the Service's Regional Office, One Gateway Center, Suite 700, Newton Corner, Massachusetts 02158.

FOR FURTHER INFORMATION CONTACT: Richard W. Dyer at the above address (617/965-5100 or FTS 829-9316).

SUPPLEMENTARY INFORMATION:

Background

Peter's Mountain mallow is a member of the family Malvaceae (mallow family) presently known to exist in only one small population in western Virginia. The population occurs on private land, partially owned by The Nature Conservancy, near the summit of Peter's Mountain in Giles County. The perennial plants are 20 to 36 inches (0.5 to 0.9 meters) tall and resemble small hollyhocks with large rose or light pink flowers 1 to 2 inches (2.5 to 5.0 centimeters) across. The short-stalked, odorless, flowers occur in terminal clusters or in the axils of the upper leaves in late July and August.

When the population was first discovered by Dr. Earl Core in 1927 (Strausbaugh and Core 1932), approximately 50 plants were growing vigorously in the soil-filled pockets and crevices of an exposed sandstone outcrop. The plants were in full sunlight and produced an "abundant supply of seeds." The Peter's Mountain site was visited periodically in ensuing years and "40 clumps, with 1 to 15 plants in each clump" were counted in 1962 (Keener and Hardin 1962). The plants were noted as being scattered through a 30-by-150-foot (9-by-45-meter) area following the ridge contour. Although the interpretation and counting of clumps, stems, or plants has not been uniformly applied over the years, there is little doubt that the population has declined considerably, as only 5 plants and 32 stems were observed in September 1985.

Considerable debate has existed among botanists as to the taxonomic distinction between *Iliamna corei* and a closely related species, *Iliamna remota*, which is also a candidate for Federal listing. Because of the confusion, significant points in the taxonomic history of these two taxa will be summarized. The first collections of *Iliamna remota* were made in 1872, by E.J. Hill, on a gravelly island in the Kankakee River near Altorf, Illinois. The distinct nature of the species was not recognized at that time and the plants were identified as a western species of mallow, *Sphaeralcea acerifolia*, which occurs in the Rocky Mountains from Colorado to British Columbia. In 1899, Dr. Edward L. Greene examined the Illinois plants, recognized differences between them and the widespread western species, and described the Kankakee River plants as *Iliamna remota*. Meritt L. Fernald transferred the Kankakee plants to the related genus *Sphaeralcea* under the name *Sphaeralcea remota* in the seventh edition of *Gray's Manual of Botany* (Fernald 1908). Seeking to clarify the situation for the second edition of *An Illustrated Flora of the United States, Canada and the British Possessions from Newfoundland to the Parallel of the Southern Boundary of Virginia and from the Atlantic Ocean Westward to the 102nd Meridian*, Nathaniel Lord Britton called upon Earl E. Sherff for assistance in obtaining specimens from the Kankakee Island site. Sherff visited the site with the original discoverer, Mr. Hill, in 1912. They found a vigorous colony and obtained several plants for analysis. Dr. Britton then named the species as *Phymosia remota*.

Twenty years then passed before P.D. Strausbaugh and Dr. Earl Core published an account (Strausbaugh and Core 1932) of Dr. Core's discovery of *Phymosia remota* on Peter's Mountain in August of 1927. Dr. Sherff was particularly interested in reading of the discovery because of the remarkable distance between the two populations and the differences in habitat types, i.e., mountain outcrop versus river island. Of equal interest to Sherff was a statement in the article that the Kankakee River population had been destroyed.

Sherff returned to the Kankakee River site in 1945, discovered "hundreds of plants flourishing" on the now abandoned island, and began a detailed study comparing the Illinois and Virginia populations. Dr. Sherff concluded that the Peter's Mountain and the Kankakee River plants appropriately

belonged to the same species, but that the Virginia plants were a different variety, which he named *Iliamna remota* var. *corei* (Sherff 1946). Later he concluded in fact that they were two separate species and in 1949 named the Peter's Mountain plants *iliamna corei* (Sherff 1949). Sherff's work has been the most comprehensive analysis published to date of the two populations. Although Kartesz (Kartesz and Kartesz 1980) synonomized *Iliamna corei* under *Iliamna remota*, there appears to be no definitive and specific work on which to base that conclusion. The most recent work on the two species was conducted by William A. Pusateri, while a graduate student at Miami University. Although he has not yet completed his investigations, he is of the opinion that Sherff's conclusion on the distinctiveness of the two species is correct (Pusateri, personal communication).

Although *Iliamna remota* is also a candidate for Federal listing, sufficient information is not on hand to justify a proposal at this time. At least three wild or perhaps introduced populations of *Iliamna remota* are known to exist, and the literature refers to additional populations being established in home gardens and other "secure places." The original Kankakee River island site is also now protected as a State ecological preserve.

Iliamna corei was designated as a category-1 candidate for Federal listing in the Service's **Federal Register** Notice of Review of plant taxa for listing as endangered or threatened on December 15, 1980 (45 FR 82480). Category-1 taxa are defined as species for which sufficient information is on hand to support the biological appropriateness of proposing to list. The Endangered Species Act Amendments of 1982 required that all petitions pending as of October 13, 1982, be treated as having been newly submitted on that date. The species listed in the December 15, 1980, Notice of Review were treated as if they had been petitioned, and the deadline for making a finding on such species, including *Iliamna corei*, was October 13, 1983. On October 13, 1983, and again on October 12, 1984, the petition finding was made that listing of *Iliamna corei* was warranted, but precluded by other pending listing actions, in accordance with section 4(b)(3)(B)(iii) of the Act. Such findings require a recycling of the petition pursuant to section 4(b)(3)(C)(i) of the Act. The proposed rule of September 3, 1985 (50 FR 35584), constituted the Service's final positive petition finding on this species.

Summary of Comments and Recommendations

In the September 3, 1985, proposed rule (50 CFR 35584) and associated notifications, all interested parties were requested to submit factual reports or information that might contribute to the development of a final rule. The Virginia Department of Agriculture and Consumer Services, the Giles county government, conservation organizations, and other interested parties were contacted and requested to comment. A notice inviting general public comments was also published in a local newspaper. Three comments were received, all of which supported the proposed rule. The comments are discussed below.

The Virginia Department of Agriculture and Consumer Services is responsible for plant conservation and protection in the state. The Department supported the proposed rule and stated it was also initiating action to list the species as endangered under the Virginia Endangered Plant and Insect Species Act. A "Notice of Intent" has been published in the *Virginia Register* and the Department plans to initiate public hearings on the listing early in 1986.

The Virginia Chapter of The Nature Conservancy also commented in favor of the proposed rule and provided up-to-date information on the status of the species and threats to its continued existence. The Conservancy recently acquired one-quarter interest in the property where the plants occur. This will greatly expedite the implementation of needed management actions including the removal of competing vegetation and control of browsing by white-tailed deer.

A private citizen also commented on the proposed rule expressing his interest in assisting in the development of the species' recovery plan.

Summary of Factors Affecting the Species

After a thorough review and consideration of all information available, the Service has determined that *Iliamna corei* should be classified as an endangered species. Procedures found at section 4(a)(1) of the Endangered Species Act (16 U.S.C. 1531 *et seq.*) and regulations promulgated to implement the listing provisions of the Act (50 CFR Part 424) were followed. A species may be determined to be an endangered or threatened species due to one or more of the five factors described in section 4(a)(1). These factors and their application to *Iliamna corei* (Sherff) Sherff (Peter's Mountain mallow) are as follows:

A. *The present or threatened destruction, modification, or curtailmen of its habitat or range.* Habitat degradation is the primary threat to the continued existence of *Iliamna corei*. The encroachment of competing vegetation and the subsequent reductior of direct sunlight reaching the plants appear to be major factors in the reduced size and reproductive vigor of the population. Historical references indicate that the population on the sandstone outcrop was previously open to a great deal more direct sunlight than is the case today. The growth of the forest canopy has been a factor, but the major threat is competition from an introduced herbaceous species, *Polymnia canadensis* (Canadian leafcup). Previous publications that list the woody and herbaceous plants growing in association with *Iliamna corei* (e.g., Keener and Hardin 1962) make no reference to the leafcup, which now dominates the site. How the leafcup became established is open to speculation, but establishment could have been expedited by the completion of a nearby power transmission line or the construction of a hiking trail. Although the trail has now been abandoned, a number of *Iliamna* plants were destroyed when the trail was built through the colony.

B. *Overutilization for commercial, recreational, scientific, or educational purposes.* Scientific collecting has been a problem, as many botanists have visited the site since the original discovery in 1927 to collect herbarium specimens. Local professors and students have visited the site for educational purposes.

The population was once more vigorous and larger in numbers and in size, and some collecting might have been tolerated. Any further collecting, however, could be extremely detrimental. There is no known record of commercial collection for horticultural purposes; however, whole plants, fruits, and seeds have been take for private purposes, particular for hom gardens.

C. *Disease or predation.* White-tailed deer have been known to heavily browse the plants and appear to be a significant factor in reducing or suppressing the population.

D. *The inadequacy of existing regulatory mechanisms.* The Commonwealth of Virginia does not presently protect *Iliamna corei* under State law but has initiated action to lis the plant. Under the State's Endangere Plant and Insect Species Act it is

unlawful to dig, cut, process or collect, remove, transport, possess, sell, offer for sale, or give away listed plants other than from one's own land. Because the Federal Endangered Species Act does not prohibit the collecting of endangered or threatened plants on non-Federal lands, the listing of *Iliamna corei* under State law could provide an important degree of protection. The authority to list plants under the State law is vested in the Commissioner of the Department of Argiculture with concurrence by an Advisory Board.

E. *Other natural or man made factors affecting its continued existence.* Because of the small size of the only known population, its lack of vigor, and its presently low reproductive potential, a number of chance events such as fire, insect infestation or intensive browsing could become significant factors in the species' continued existence.

The Service has carefully assessed the best scientific information available regarding the past, present, and future threats faced by this species in determining to make this rule final. Based on this evaluation, the preferred action is to list *Iliamna corei* as endangered. Due to the continuing decline of the only known population and the rapid encroachment of competing vegetation, the plants are particularly vulnerable and in need of protection.

Critical Habitat

Section 4(a)(3) of the Act, as amended, requires that to the maximum extent prudent and determinable, the Secretary designate any habitat of a species which is considered to be critical habitat at the time the species is determined to be endangered or threatened. Due to the extremely small size of the existing population and the documented history of collecting the plant for private cultivation and/or scientific purposes, the publication of detailed habitat description and maps could expose the speices to intensified horticultural collecting, vandalism, or trampling by curiosity seekers. The Service finds that designation of critical habitat is therefore not prudent at this time.

Available Conservation Measures

Conservation measures provided to species listed as endangered or threatened under the Endangered Species Act include recognition, recovery actions, requirements for Federal protection, and prohibitions against certain practices. Recognition through listing encourages and results in conservation actions by Federal and State agencies, private conservation organizations, and individuals. The Nature Conservancy recently acquired partial interest in the property on which this species occurs. This acquisition will help protect the site and allow for management activities. Other conservation measures, including required protection efforts by Federal agencies and prohibitions against collecting are discussed, in part, below.

Section 7(a) of the Act, as amended, requires Federal agencies to evaluate their actions with respect to any species that is proposed or listed as endangered or threatened, and with respect to its critical habitat, if any is being designated. Regulations implementing this interagency cooperation provision of the Act are codified at 50 CFR Part 402, and are now under revision (see proposal at 48 FR 29990, June 29, 1983). Section 7(a)(2) requires Federal agencies to ensure that activities they authorize, fund, or carry out are no likely to jeopardize the continued existence of such a species or destroy or adversely modify its critical habitat. If a Federal action may affect a listed species or its critical habitat, the responsible Federal agency must enter into formal consultation with the Service. Currently, however, there is no known Federal action likely to affect the site where Peter's Mountain mallow occurs, and no critical habitat is being designated.

The Act and its implementing regulations found at 50 CFR 17.61, 17.62, and 17.63 set forth a series of general trade prohibitions and exceptions that apply to all endangered plant species. These prohibitions in part make it illegal for any person subject to the jurisdiction of the United States to import or export any endangered plant, transport it in interstate or foreign commerce in the course of a commerical activity, sell or offer it for sale in interstate or foreign commerce, or remove it from an area under Federal jurisdiction and reduce it to possession. The Act and 50 CFR 17.62 and 17.63 also provide for the issuance of permits to carry out otherwise prohibited activities involving endangered species under certain circumstances. There is no known commercial trade in *Iliamna corei*, and it is not known to occur on Federal land; thus the Service anticipates few, if any, requests for such permits. Requests for copies of the regulations on plants and inquiries regarding them may be addressed to the Federal Wildlife Permit Office, U.S. Fish and Wildlife Service, Washington, D.C. 20240 (703/235-1903).

National Environmental Policy Act

The Service has determined that an Environmental Assessment, as defined under the authority of the National Environmental Policy Act of 1969, need not be prepared in connection with regulations adopted pursuant to section 4(a) of the Endangered Species Act of 1973, as amended. A notice outlining the Service's reasons for this determination was published in the **Federal Register** on October 25, 1983 (48 FR 49244).

Literature Cited

Fernald, M.L. 1908. Gray's Manual of Botany, 7th Edition. American Book Company, New York.

Kartesz, J.T., and R. Kartesz. 1980 A Synonymized Checklist of the Vascular Flora of the United States, Canada, and Greenland. University of North Carolina Press. Chapel Hill, North Carolina.

Keener, C.S. and J.W. Hardin. 1962. *Iliamna corei* Revisited. Castanea 27:176-178.

Sherff, E.E. 1946. Notes on Certain Plants in the Gray's Manual Range. Rhodora 48:89-96.

Sheff, E.E. 1949. Miscellaneous Notes on Dicotyledonous Plants. American Journal of Botany 36:499-511.

Strausbaugh, P.D. and E.L. Core. 1932. *Phymosia remota*. Rhodora 34:142-146.

Author

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List of Subjects in 50 CFR Part 17

Endangered and threatened wildlife, Fish, Marine mammals, Plants (agriculture).

Regulation Promulgation

PART 17—[AMENDED]

Accordingly, Part 17, Subchapter B of Chapter I, Title 50 of the Code of Federal Regulations, is amended as set forth below:

1. The authority citation for Part 17 continues to read as follows:

Authority: Pub. L. 93-205, 87 Stat. 884; Pub. L. 94-359, 90 Stat. 911; Pub. L. 95-632, 92 Stat. 3751; Pub. L. 96-159, 93 Stat. 1225; Pub. L. 97-304, 96 Stat. 1411 (16 U.S.C. 1531 *et seq.*).

2. Amend § 17-12(h) by adding the following, in alphabetical order under family Malvaceae, to the List of Endangered and Threatened Plants:

§ 17.12 Endangered and threatened plants.

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Species		Historic range	Status	When listed	Critical habitat	Special rules
Scientific name	Common name					
Malvaceae—Mallow family:						
•	•	•	•	•	•	•
Iliamna corei	Peter's Mountain mallow	U.S.A. (VA)	E	230	NA	NA
•	•	•	•	•	•	•

Dated: April 18, 1986.

P. Daniel Smith,

Deputy Assistant Secretary for Fish and Wildlife and Parks.

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